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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,426	02/28/2002	Brett Holle	2002P03394US (1505-0112)	3200
7590 09/07/2004			EXAMINER	
Harold C. Moore Maginot, Moore & Bowman 111 Monument Circle, Suite 3000 Bank One Center/Tower Indianapolis, IN 46204-5115			HUANG, SIHONG	
			ART UNIT	PAPER NUMBER
			2632	
DATE MAILED: 09/07/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,426

Applicant(s)

HOLLE ET AL.

Examiner

Sihong Huang

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9, 11-15 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 6, 10 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/26/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 14 recites the limitations "the at least one feeder line" and "the output" in lines 2 and 3, respectively. There is insufficient antecedent basis for these limitations in the claim. Should claim 14 be made dependent from claim 11 instead?

4. Claim 15 recites the limitation "the isolation mechanism" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7-9 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Loy et al. (US Pat. No. 5,940,009).

Regarding claim 1, Loy et al (hereinafter Loy) discloses an apparatus (Fig. 2) for determining tampering in an electricity meter arrangement (100) comprising: a service disconnect switch (106, 108) operable to controllably disconnect electrical power lines

(12; 20A & 20B) from a load (14), the load including at least first and second feeder lines (20C & 20D); a voltage sense circuit (110, Fig. 3) coupled to sense voltage on the first and second feeder lines, the voltage sense circuit operable to generate a voltage detection signal (either L1 Logic Input or L2 Logic Input, see Fig. 3) based on a first voltage on the first feeder line and a second voltage on the second feeder line, the voltage detection signal having a characteristic representative of whether line voltage from the electrical power lines is present on the first and second feeder lines; and a processing circuit (microprocessor 102) operably connected to the voltage sense circuit (110) to receive the voltage detection signal (see Figs. 2 and 3), the processing circuit operable to selectively generate a tamper flag based on whether the characteristic of the voltage detection signal indicates the presence of voltage on the first and second feeder lines when the service disconnect switch has disconnected the electrical power lines from the first and second feeder lines (see abstract).

Regarding claims 2 and 3, Loy discloses that the voltage sense circuit (110) is operable to generate a voltage detection signal (one of the signals from L1 Logic Input and L2 Logic Input in Fig. 3) having a first magnitude when line voltage is present on the first and second feeder lines (indicated as “high” in either L1 Logic Input or L2 Logic Input) and having a second magnitude (indicated as “low” in either L1 Logic Input or L2 Logic Input) when line voltage is not present on the first and second feeder lines (also see col. 4, lines 15-18).

Regarding claim 4, Loy in col. 4, lines 9-19 discloses a voltage divider.

Regarding claims 5 and 8, Loy discloses the output switch (Zener diodes 170 and 172, see col. 4, lines 5-20).

Regarding claim 7, Loy discloses the claimed subject matter (col. 4, lines 31-41).

Regarding claim 9, Loy discloses an isolation mechanism (Zener diodes 170 and 172, see col. 4, lines 18-19).

Regarding claims 11-14, Loy further discloses a housing (100 in Fig. 2). Other elements are already addressed in the above claims.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennon et al. (US Pat. No. 5,488,565).

Regarding claims 17 and 20, Kennon et al (hereinafter Kennon) discloses a method (abstract) comprising: a) disconnecting, using a service disconnect switch (20), at least one feeder line of a load from at least one electrical power line (see power line 12, 240V AC and LOAD at the upper right corner of Fig. 4), the service disconnect switch disposed within a LMT (load management terminal) housing (see col. 1, lines 59-61, col. 4, lines 24-26 and col. 11, lines 46-48); b) employing a voltage sense circuit (102, see Fig. 4) that is operably connected to the at least one power line (12) to generate a voltage detection

signal having a characteristic representative of whether voltage from the electrical power lines is present on the at least one feeder line (col. 11, line 39 to col. 12, line 20); c) providing the voltage detection signal to an output that is electrically isolated from the at least one feeder line (104, see Fig. 4); d) employing a processing circuit (28) to receive the voltage detection signal and generate a tamper flag if the characteristic of the voltage detection signal indicates the presence of voltage on the at least one feeder line (col. 11, line 39 to col. 12, line 36). Although Kennon does not disclose that the LMT housing includes electricity metering, incorporating/combining electricity metering in the LMT housing would have been obvious to one of the ordinary skilled in the art because the LMT of Kennon concerns appliance such as thermostat (see Fig. 1) which requires power to operate and such requirement requires electricity metering for billing purpose and therefore it falls into the electricity metering industry.

Regarding claims 18 and 19, since voltage sense circuit (102) of Kennon is capable of detecting the presence and absence of voltage to the load, the voltage detection signal at output 104 to the microprocessor 28 would have two different levels indicating the presence and the absence states.

Allowable Subject Matter

9. Claims 6, 10 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claim 15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Singhal et al. (EP 0 455 518 A2) is cited to show an electricity meter tamper monitoring apparatus and methods.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sihong Huang whose telephone number is 571-272-2958. The examiner can normally be reached on Wed, Thu & Fri.

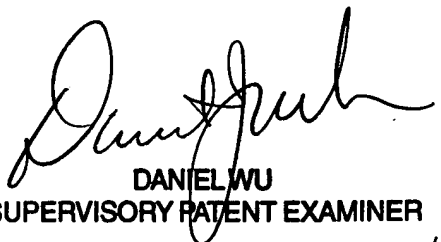
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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S. Huang
September 2, 2004


DANIEL WU
SUPERVISORY PATENT EXAMINER
9/02/04